Author Index

Arastoopour, H., 186
Austin, L. G., 283
Ayala, R. E., 3

Barahona, C. A., 283
Benbow, J. J., 103
Biswas, J., 179
Bridgwater, J., 103

Campanella, O. H., 273
Čársky, M., 237
Casassa, E. Z., 3
Clark, N. N., 243
Čermák, J., 183
Compo, P., 85

Drahoš, J., 183

Flamant, G., 251
Frith, W. J., 27
Furusaki, S., 267

Gauthier, D., 251

Haaker, G., 231
Hartman, M., 237
Higashitani, K., 61
Hohmann, R., 189
Hsu, F.-L., 35

Ibrahim, A., 151

Kai, T., 267
Kanda, Y., 277
Klinzing, G. E., 135, 181
Koka, V. R., 189, 201
Kubota, T., 61

Leschonski, K., 49
Leung, L. S., 179
Lloyd, P. J., 125

Ma, T.-W., 35
Marmur, A., 185
Masiuk, S., 217
Matchett, A. J., 167, 186
Mazzone, D. N., 71
Menacho, J. M., 283
Mewis, J., 27
Myler, C. A., 135

Nedderman, R. M., 115

Ouchiyama, N., 103

Parfitt, G. D., 3
Pata, J., 237
Peleg, M., 273
Pfeffer, R., 71, 85
Punčochář, M., 183

Rathbone, T., 115
Rebouillat, S., 273
Rivot, M., 251
Rohatgi, N. D., 135
Rouanet, A., 251
Russel, W. B., 15

Sano, S., 277
Shirawakawa, Y., 267
Sibieude, F., 251
Stanley-Wood, N. G., 151
Strivens, T. A., 27

Takahashi, T., 267
Tardos, G. I., 71, 85
Trass, O., 189, 201
Turian, R. M., 35

Veselý, V., 237

Webb, P. J., 125
Wei-Kuo Lee, 261

Yang, R. Y. K., 159
Yashima, S., 277

Zaltash, A., 135
Zhang, M. C., 159

© Elsevier Sequoia/Printed in The Netherlands

Powder Technology, 51 (1987) 297 - 299

Subject Index

Angle of failure plane
  angle of friction and strength for compacts of tartaric acid, microcrystalline cellulose and mixture of the two; correlation between, 151
Angle of friction
  angle of failure plane and strength for compacts of tartaric acid, microcrystalline cellulose and mixture of the two; correlation between, 151
Annular shear cell
  and critical state theory, 186
Applicability of choking correlations
  for fast-fluid bed operation, 179
Attrition
  action, power consumption and mixing time for solid mixing in a ribbon mixer, 217
  bulk particle; fracture toughness of extrudates and its relationship to rates of, 103

Behaviour of liquid bridges
  between two relatively moving particles, 71
Binary system fluidized bed equilibrium, 237
Breakage of coal
  and determination of breakage parameters in the Szego mill, modelling of, 201
Breakage parameters
  determination of, and modelling of coal breakage in the Szego mill, 201
Bubble behaviour
  change in, for different fluidizing gases in a fluidized bed, 267
Bubbling gas-fluidized bed dynamics
  scaling laws for, 159

Capillary rise
  of aqueous solutions in measurement of contact angles in powder systems, study of applicability of, 3
Cellulose
  microcrystalline and tartaric acid, correlation between angle of friction, angle of failure plane and strength for compacts of and mixture of the two, 151
Change in bubble behaviour
  for different fluidizing gases in a fluidized bed, 267
Compacts of tartaric acid
  microcrystalline cellulose and mixture of the two; correlation between angle of friction, angle of failure plane and strength for, 151
Consolidation
  influence of, on shear test results, 231
Contact angles in powder systems
  study of applicability of capillary rise of aqueous solutions in measurement of, 3
Correlation between angle of friction, angle of failure plane and strength
  for compacts of tartaric acid, microcrystalline cellulose and mixture of the two, 151
Critical state theory
  and theannular shear cell, 186
Crushing of single particles
  relationships between particle size and fracture energy or impact velocity required to fracture as estimated from, 277
Cut sizes
  small, feasibility of producing, in an electrostatic classifier, 49

Deaeration of fine powders, 115
Defluidization characteristics
  and minimum sintering temperatures of fluidizable particles, 85
Determination of breakage parameters
  and modelling of coal breakage in the Szego mill, 201
Dispersions
  concentrated, theoretical approaches to rheology of, 15

Electrostatic classifier
  feasibility of producing small cut sizes in, 49
Electrostatic forces present in slip velocities, particle size effect on, 181
Estimation of critical velocity
  in pipeline flow of slurries, 35
Extrudates fracture toughness
  and its relationship to rates of bulk particle attrition, 103

Feasibility of producing small cut sizes
  in an electrostatic classifier, 49
Flocculation pelleting
  colloidal, of latex particles, 61
Flooding of a powder
  importance of particle size distribution, 125
Flow of dry particulates
  in the Szego mill, 189
Fluidized bed
  binary system, equilibrium of, 237
  change in bubble behaviour for different fluidizing gasses in, 267
  gas–solid; porosity in, at onset of slugging, 183
Fluidized bed reactor
  reduction of natural ilmenite by methane in, 251
Fractal harmonics and dimensions
  new scheme for particle shape characterization based on, 243
Fracture energy or impact velocity required to fracture
  and particle size; relationships between, as estimated from single particle crushing, 277
Fracture toughness of extrudates
  and its relationship to rates of bulk particle attrition, 103
Friction bond dynamic models
  of plane strain in powder systems, 167

© Elsevier Sequoia/Printed in The Netherlands

Gas-fluidized bed
bubbling, scaling laws for dynamics of, 159
Granular media
rheological nature of solid pressures of, 261
Grinding
autogenous and semi-autogenous, in tumbling mills, 283

Ilmenite
natural, reduction by methane in a fluidized bed reactor, 251
Impact velocity or fracture energy
and particle size required to fracture, relationships between, as estimated from single particle crushing, 277
Influence of consolidation
on shear test results, 231
Investigation of autogenous and semi-autogenous grinding
in tumbling mills, 283

Latex particles
colloidal, pelleting flocculation of, 61
Liquid bridges
between two relatively moving particles, behaviour of, 71

Mechanical characteristics of raw and processed peat, 273
Methane
reduction of natural ilmenite in a fluidized bed reactor by, 251
Mixing of solids
in a ribbon mixer, power consumption, mixing time and attrition action for, 217
Mixing time
power consumption and attrition action for solid mixing in a ribbon mixer, 217
Minimum sintering temperatures
and defluidization characteristics of fluidizable particles, 85
Models
friction, dynamic of plane strain in powder systems, 167

New scheme for particle shape characterization
based on fractal harmonics and fractal dimensions, 243

Particle attrition
bulk, fracture toughness of extrudates and its relationship to rates of, 103
Particle mixtures
thermodynamic approach to packing of, 185
Particle shape characterization
new scheme for, based on fractal harmonics and fractal dimensions, 243
Particle size
effect on slip velocities with electrostatic forces present, 181
and fracture energy or impact velocity required to fracture as estimatef from single particle crushing, relationships between, 277
Particle size distribution
importance of, in flooding of a powder, 125
Particles
colloidal latex, pelleting flocculation of, 61
fluidizable, minimum sintering temperatures and defluidization characteristics of, 85
two relatively moving, behaviour of liquid bridges between, 71
Particulates
dry; flow of, in the Szego mill, 189
Peat
raw processed, mechanical characteristics of, 273
Pelleting flocculation
of colloidal latex particles, 61
Phase diagram approach to pneumatic transport, 135
Pipeline flow of slurries
estimation of critical velocity in, 35
Plane strain in powder systems
friction bond, dynamic models of, 167
Pneumatic transport — a review
(Generalized phase diagram approach to pneumatic transport), 135
Porosity
in a gas–solid fluidized bed at onset of slugging, 183
Powder systems
friction bond, dynamic models of plane strain in, 167
study of applicability of capillary rise of aqueous solutions in measurement of contact angles in, 3
Powders
fine, deaeration of, 115
important of particle size distribution in flooding of, 125
Power consumption
mixing time and attrition action for solid mixing in a ribbon mixer, 217

Reduction of natural ilmenite
by methane in a fluidized bed reactor, 251
Relationships between particle size and fracture energy or impact velocity
required to fracture as estimated from single particle crushing, 277
Rheological nature
of solid pressures of granular media, 261
Rheology
of concentrated dispersions, theoretical approaches to, 15
of concentrated suspensions; experimental investigations, 27
Ribbon mixer
power consumption mixing time and attrition action for solid mixing in, 217

Scaling laws
for bubbling gas-fluidized bed dynamics, 159
Shear cell
annular, and critical state theory, 186
Shear test results
influence of consolidation on, 231
Sintering temperatures
minimum, and defluidization characteristics of fluidizable particles, 85

Slip velocities
with electrostatic forces present, particle size effect on, 181
Slugging
in gas–solid fluidized bed, porosity at onset of, 183
Slurries
estimation of critical velocity in pipeline flow of, 35
Solid pressure of granular media
rheological nature of, 261
Study of applicability of capilary rise of aqueous solutions
in measurement of contact angles in powder systems, 3
Suspensions
concentrated; experimental investigation of rheology of, 27
Szego mill
determination of breakage parameters and modelling of coal breakage in, 201
flow of dry particulates in, 189

Tartaric acid
microcrystalline cellulose compacts of, and mixture of the two; correlation between angle of friction, angle of failure plane and strength for, 151
Theoretical approaches
to rheology of concentrated dispersions, 15
Thermodynamic approach
to packing of particle mixtures, 185
Tumbling mills
investigation of autogenous and semi-autogenous grinding in, 283

Velocity
critical, in pipeline flow of slurries, estimation of, 35